

IMPROVED FINISHING FOR FLOOR COVERING

The present invention relates to finishing floor coverings, particularly to means for sealing a joint between edges of a self-coving floor covering.

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When a floor covering such as a synthetic floor covering is laid, the edge of the floor covering has to be finished so that the resultant covered floor is tidy and aesthetically pleasing. This may be achieved by cutting the floor covering to size so that the floor covering is flush to the edge of the floor area. Alternatively, the floor covering may be cut to a size greater than the floor so that a length of the floor covering continues up the adjacent wall and is attached thereto. If the floor covering is laid up the lower part of the wall in this way, a coved section is desirably formed at the edge at which the floor and the wall meet. This is generally achieved by means of a cove former, which is attached to the wall and floor by contact adhesive, and produces a curved surface over which the floor covering may be laid. There is then the matter of finishing the edge of the floor covering. This is generally achieved by the use of a capping unit, which is attached to the wall at a suitable height. The edge of the floor covering can then be attached to the capping unit in order to provide a tidy finish.

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The known method of laying floor covering in this manner is complicated because at corners in the room where the floor covering is being laid, it is necessary to hot-weld the joint between the edges of the floor covering to provide a water-tight seal.

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Forming a neat and effective hot-weld joint requires skill and experience. Generally the edges of the floor covering to be welded first need to be grooved to receive the welding material. Then the welding material must be applied to the join using a welding gun. Once the weld is cool, the

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surplus welding material should be removed and then finally the weld should be chamfered with a sharp blade to give a neat finish. The problem with this procedure is that a water-tight seal is not guaranteed every time.

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It is an aim of the present invention to ameliorate these problems.

According to a first embodiment of the present invention a finishing unit for floor covering has a lower section adapted to engage a floor and an upper section adapted to engage an adjacent wall, with the area of the lower section adjacent the upper section being adapted so that floor covering laid over said area forms a curved surface and wherein the finishing unit has a wall or floor facing backing part and a floor covering facing front part wherein the backing part and/or front part are provided with attaching means suitable for attaching the finishing unit to the floor or wall where it is to be used and/or suitable for attaching the finishing unit to the floor covering.

Preferably, the finishing unit according to the first embodiment has both an upper section and a lower section which are substantially rigid.

According to an alternative first embodiment of the present invention a finishing unit for floor covering has a lower section adapted to engage a floor and an upper section adapted to engage an adjacent wall, with the area of the lower section adjacent the upper section being adapted so that floor covering laid over said area forms a curved surface wherein the lower section and the upper section of the finishing unit are substantially rigid and wherein the finishing unit has a wall or floor facing backing part and a floor covering facing front part.

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Preferably, the finishing unit of the alternative first embodiment is provided with attaching means suitable for attaching the finishing unit to the floor or wall where it is to be used and/or suitable for attaching the finishing unit to the floor covering.

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It is advantageous for the finishing unit of the present invention to have an upper section and a lower section which are substantially rigid. A finishing unit having a substantially rigid upper section and lower section provides a consistent surface onto which the floor covering can be laid.

10 For example, a consistently smooth and/or consistently flat surface can be provided by use of a substantially rigid upper and lower section.

Preferably the finishing unit of the present invention comprises a backing part which has a front face and a back face, and an upper section and a
15 lower section, wherein the area of the lower section adjacent to the upper section is adapted so that floor covering laid over said area forms a curved surface.

At least one of the front face and the back face of the backing part are
20 preferably provided with attaching means. More preferably both the front face and the back face of the backing part are provided with attaching means.

Preferably, some or all of the surface of the backing part is provided with
25 cured or substantially cured adhesive. The cured or substantially cured adhesive is preferably covered with a removable protective liner, which when removed exposes the cured or substantially cured adhesive so that it may be used to attach the unit to a surface. The liner may be, for example, a suitably treated paper such as paper coated with silicone on at
30 least the side which will be in contact with the adhesive, preferably paper coated on both sides with silicone.

The backing part preferably has a substantially J-shaped profile, more preferably it comprises a substantially straight upper section and a curved lower section. Preferably, the backing part is rigid. It is preferred that
5 the backing part is made from rigid plastics material, such as rigid PVC.

It is also preferred that some or all of the backing part is ridged. Preferably, the backing part is formed from ridged material such as ridged plastics material, for example ridged PVC. It is beneficial to use
10 ridged material as this results in a stronger unit that is less prone to damage or failure. Ridged material is also able to cover over bad wall or floor finishes and allows mitres to be more easily formed at corners.

Preferably, some or all of the lower section of the backing part is
15 substantially in the shape of a quarter circle. The radius of the quarter circle may be selected to give an appropriately sized curve depending on the size of coving required.

The finishing unit may be provided in any suitable length and height.
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The finishing unit may suitably be provided with means for attaching the unit to the wall or floor surface where it is to be used. Preferably, some or all of the back face of the backing part of the unit is provided with cured or substantially cured adhesive. The cured or substantially cured
25 adhesive may be, for example, an acrylic based adhesive such as pure acrylic adhesive. The adhesive may preferably be covered with a removable protective liner as described above.

The cured or substantially cured adhesive may be provided directly on the
30 unit, covering some or all of the back face of the backing part of the unit. Preferably, the cured or substantially cured adhesive is provided

indirectly on the unit with a piece of material covering some or all of the back face of the backing part of the unit, said material being attached to the unit by any suitable means and being provided with a coating of cured or substantially cured adhesive. The material may be any suitable material. For example, a cushioning material such as foam material.

The finishing unit may also be adapted so as to provide one or more holes suitable for use in attaching the unit to a surface. For example, holes may be provided in the backing part suitable for allowing the unit to be attached to a surface by means of mechanical fastening means such as screws.

Preferably, the finishing unit is also provided with a means for attaching floor covering to the unit. For example, some or all of the front face of the backing part of the unit may be covered with cured or substantially cured adhesive. The cured or substantially cured adhesive is preferably an adhesive as described above. The adhesive may be directly provided on the unit. Preferably, the adhesive is provided indirectly on the unit, in a manner as described above. The adhesive is preferably covered with a liner as described above.

Preferably both the front face and the back face of the backing part are provided with cured or substantially cured adhesive covered with a protective removable liner.

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The use of cured or substantially cured adhesive on the finishing unit of the present invention removes the need for contact adhesive to be used in attaching the unit to surfaces such as walls, floors and floor coverings. This is beneficial in terms of health and safety. Standard contact adhesives suitable for use in such an application, for example those generally used in attaching cove formers to wall and floor surfaces and

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floor covering to cove formers, will tend to contain solvents such as toluene, which require suitable ventilation or are subject to other health and safety requirements. Water based solvents are generally not suitable for such applications, as the water is slow to evaporate and therefore the
5 adhesive takes a long time to be ready for use. It is clearly particularly beneficial for both the front and back faces of the backing part to be provided with cured or substantially cured adhesive covered with a protective removable liner.

10 Further, a unit provided with cured or substantially cured adhesive is quicker to install than a unit whereby contact adhesive is used, as it is only necessary to remove the covering liner and join the surfaces, whereas when contact adhesive is used the adhesive has to first be applied to both surfaces being attached and then it is necessary to wait for the
15 adhesive to cure before the surfaces are attached together.

The upper section of the finishing unit may be adapted to provide a downwardly directed channel for receiving an edge of the floor covering. The finishing unit may include a capping part wherein the capping part
20 together with the front face of the upper section of the backing part forms a channel having an entrance facing substantially towards the lower section of the backing part.

Accordingly the present invention may provide a one piece system that
25 both allows a coved area to be formed between a floor and an adjacent wall and allows the edge of floor covering laid up said wall to be capped to give a neat finish.

The capping part and the front face preferably together form a channel
30 that is narrower at its entrance than at its closed end. It is preferred that the channel runs along all or substantially all of the length of the unit.

The capping part may be integral with the backing part, or may be attached to the backing part. Preferably, the capping part is attached to or near to an edge of the upper section of the backing part. For example,
5 the capping part may be attached to the top edge of the upper section of the backing part by means of an adhesive.

The capping part is preferably flexible. Preferably, the capping part is made from flexible plastics material such as flexible PVC. It is preferred
10 that the capping part comprises a channel forming section, which together with the front face of the upper section of the backing part forms a channel, and an upstanding section, which is dimensionally adapted so that in use it will fit against the wall to which the unit is attached. The
upstanding section may, for example, substantially follow the line of the
15 backing part of the unit. The use of a flexible capping part with an upstanding section is beneficial as this enables the unit to be used to form a watertight junction with the wall or wall finish, e.g. wall tiles, water resistant paint or laminated sheet.

20 Alternatively, the finishing unit may not be provided with a capping part. In such a case, finishing of the floor covering may be achieved by use of a conventional capping unit as known in the art. Preferably, the capping unit comprises a back section adapted to engage a wall and a front section, with the back section and front section together forming a
25 downwardly directed channel. Some or all of the surface of the back section of the capping unit may be provided with cured or substantially cured adhesive. Preferably the cured or substantially cured adhesive is provided with a removable protective liner as described above.

30 When the finishing unit is not provided with an integral capping unit, the upper section of the backing part is preferably tapered towards the top;

such that the uppermost edge of the upper section has a thickness less than that of the part of the upper section adjacent the lower section. This improves the ability of the finishing unit to cover uneven wall surfaces.

- 5 Accordingly, the present invention also provides a finishing system comprising a finishing unit as described above and a capping unit as described above.

10 The present invention also provides a coving kit which comprises a finishing unit according to the first embodiment or alternative first embodiment of the present invention, an adhesive system, and, optionally a capping unit as described above, wherein the adhesive system comprises a substrate such as foam or paper provided on both sides with cured or substantially cured adhesive covered with a removable protective layer.

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The present invention also provides a method of finishing an edge of a piece of floor covering which comprises attaching a length of a finishing unit as detailed above to a section of wall and adjacent floor, attaching the edge area of the floor covering to the front face of the finishing unit
20 and cutting the floor covering to a size such that the edge of the floor covering can be secured in the downwardly directed channel of the unit.

In a preferred method, the finishing unit is attached to the wall and adjacent floor at least by means of a cured or substantially cured adhesive
25 as described above. Preferably any liner covering the cured or substantially cured adhesive on the back face of the backing part is removed, and the unit is then attached to the section of the wall and adjacent floor where finishing is required by means of the adhesive.

30 It is further preferred that mastic such as Altromastic is also used to adhere the unit to the wall and adjacent floor; this may suitably be applied

to the back face of the backing part before attaching the unit to the wall and adjacent floor. The use of mastic as well as the cured or substantially cured adhesive provides an initial adhesion as well as taking up any undulations in the wall or floor surface.

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It is also preferred that the edge area of the floor covering is attached to the finishing unit at least by means of a cured or substantially cured adhesive as described above. Preferably any liner covering the cured or substantially cured adhesive on the front face of the backing part is removed, and the floor covering is then attached to the front face of the backing part of the unit by means of the adhesive.

It is further preferred that once the floor covering has been attached to the front face of the backing part and subsequently cut to size such that the edge of the floor covering can be tucked into the channel, the edge is attached to the inside of the channel. Preferably the edge of the floor covering is attached to the inside of the channel by means of cured or substantially cured adhesive.

According to the invention there is provided a sealant kit for sealing a join between edges of a self-coving floor covering laid on a floor and a wall, which kit includes at least one backing member in the form of a finishing unit according to the invention and at least one front member, the backing member being shaped to have a wall engaging portion, a floor engaging portion and a portion to connect the wall engaging portion to the floor engaging portion and the front member being shaped correspondingly.

The front member preferably has at least one connecting formation which allows the front member to be connected to the backing member. The backing member preferably has at least one corresponding formation to

- enable the connection to be made. The formation on the front member is preferably a projecting formation such as a spike which is more preferably barbed such that once it is inserted into a corresponding formation on the backing member, it is difficult to withdraw. The
- 5 corresponding formation on the backing member is preferably a receiving formation; more preferably the backing member forms at least one corresponding hole suitable to receive a projecting formation from a front member.
- 10 The connecting formation(s) and corresponding formation(s) are preferably of suitable dimensions and/or are arranged such that the gap which is formed between the backing member and the front member is sufficiently wide to be able to receive the floor covering.
- 15 The connecting formation(s) and corresponding formation(s) are preferably provided on the portions of the front and backing member which connect the wall engaging portions to the floor engaging portions. This is because there is generally space between the backing member and the floor or wall to accommodate any part of the connecting formation(s)
- 20 which protrude beyond the backing member.
- Use of the sealant kit according to the invention simplifies the sealing of a joint between edges of floor covering as it removes the need to use hot-welding. Also it guarantees a water-tight seal. It has the advantage of
- 25 allowing floor covering which cannot be hot-welded to be used in self-coving applications. The use of the kit allows the edges of the floor covering to be sealed by mastic as the front and backing members reinforce the joint.

The sealant kit is preferably for sealing a join between edges of floor covering at a corner of an area in which the floor covering is to be laid. The backing member is preferably shaped to fit the corner.

- 5 The backing member is preferably formed from a rigid plastics material. The front member is preferably formed from a flexible plastics material. More preferably the front member is formed from a plastics material which has been coloured to match the colour of the floor covering.
- 10 The front member is preferably shaped to have a J-shaped profile. The backing member is preferably lined with adhesive layers, more preferably on both its front and back sides. The adhesive layers are protected before use by removable liners. The presence of such adhesive layers speeds up the sealing of a join between edges of a floor covering with the sealant kit
- 15 because they remove the need to apply adhesive to the backing member or to the floor covering before sealing the edges of the floor covering.

Specific embodiments of the invention are further described with reference to the drawings, in which:

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Figure 1 is a cross section through a finishing unit of the present invention;

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Figure 2 is a perspective view of the finishing unit of **Figure 1**;

Figure 3 is a cross section through an alternative finishing unit of the present invention; and

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Figure 4 is a perspective view of the finishing unit of **Figure 3**.

Figure 5 shows a perspective view of a front member of a sealant kit according to the invention;

5 **Figure 6** shows a horizontal cross-section of a first front member of a sealant kit according to the invention for sealing a floor covering to be laid in an area having an external corner;

10 **Figure 7** shows a horizontal cross-section of a second front member of a sealant kit according to the invention for sealing a floor covering to be laid in an area having an internal corner;

Figure 8 shows a vertical cross-section of a front member of a sealant kit according to the invention having projecting formations;

15 **Figure 9** shows a projecting formation in detail;

Figure 10 shows a first backing member of a sealant kit according to the invention for sealing a floor covering to be laid in an area having an external corner; and

20 **Figure 11** shows a second backing member of a sealant kit according to the invention for sealing a floor covering to be laid in an area having an internal corner.

25 **Figures 1 and 2 and 3 and 4** show embodiments of the present invention. The finishing unit 11, 111 for floor covering has a lower section 12b, 112b adapted to engage a floor and an upper section 12a, 112a adapted to engage an adjacent wall, with the area of the lower section adjacent the upper section being adapted so that floor covering laid over said area
30 forms a curved surface.

The finishing unit 11, 111 comprises a backing part 12, 112. The unit has a height of 100mm and a depth of 38mm.

5 The backing part 12, 112 is substantially J-shaped, with a substantially straight upper section 12a, 112a and a curved lower section 12b, 112b. The curved lower section is substantially in the shape of a quarter circle, with a radius of curvature of 38mm. The backing part is made from ridged, rigid PVC.

10 The back face of the backing part 12, 112 is provided with a strip of covered adhesive 14, 114 along the length of the unit. This comprises a strip of foam material, covered with a layer of substantially cured adhesive covered with a protective removable liner. The adhesive is a
15 pure acrylic adhesive and the liner is naturally coloured paper coated on both sides with silicone. The thickness of the liner and adhesive is 220microns. The thickness of the foam material is 0.8mm.

The front face of the backing part 12, 112 is also provided with a strip of covered adhesive 14, 114 along the length of the unit. The strip of
20 covered adhesive covers substantially all of the front face of the backing part.

The finishing unit 11 shown in Figures 1 and 2 further comprises a capping part 13. The capping part 13 comprises a channel forming section
25 13a and an upstanding section 13b. The channel forming section 13a is shaped so as to form a channel 15 with the front face of the backing part, with the channel being substantially in the shape of an upside down U and the entrance to the channel being narrower than the closed end. The channel 15 is 12mm in depth, has a maximum width towards its closed
30 end of 4mm and a width at its entrance of 1.5mm and runs the length of the unit. The upstanding section 13b substantially follows the line of the

backing part 12 but is slightly curved in the direction of the back face of the backing part. The capping part 13 is made from flexible PVC.

5 The finishing unit 111 shown in Figures 3 and 4 has a tapered section 116 at the upper end of the upper section 112a of backing part 112. The finishing unit 111 shown in Figures 3 and 4 may suitably be used in combination with a conventional capping unit as known in the art. The lower end of the tapered section 116 is 2mm in depth and the upper end of the tapered section 116 is 0.5mm in depth.

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The dimensions of the finishing unit given above are exemplary and it is to be understood that finishing units of other dimensions may also suitably be used.

15 The finishing unit of the preferred embodiment may suitably be used as follows:

Firstly, the desired length of finishing unit is cut. Generally the finishing unit may be provided in lengths of 2m from which the required length can
20 be cut. The liner covering the cured or substantially cured adhesive on the back face of the backing part is then removed. Mastic such as Altromastic may be applied to the back face of the backing part. The unit is then attached to the section of the wall and adjacent floor where finishing is required by means of the adhesive and the mastic, such that
25 the curved lower section of the backing part covers the join between wall and floor.

The floor covering material is cut to approximately the required size and laid on the floor. The liner covering the cured or substantially cured
30 adhesive on the front face of the backing part is then removed, and the adhesive is used to attach the edge area of the floor covering to the front

face of the unit. The floor covering may then be cut to size so as to fit into a channel formed between the front face of the backing part and the capping part. Alternatively, the floor covering may then be cut to size so as to fit into a channel provided by a conventional capping unit. The
5 edge of the floor covering is then inserted into said channel.

The front member 210 shown in Figures 5 to 8 has a J-shaped profile similar to the contours of a coving. In other words it has a straight wall-engaging portion 215 similar to the upper part of a coving, a curved
10 connecting portion 220 similar to the lower part of a coving for where a wall meets a floor and a straight floor-engaging portion 225.

Projecting formations 230 are provided on connecting portion 220 which are shown in more detail in Figure 9. The projecting formations 230 are
15 arranged to connect the front member 210 to a backing member. They have an elongated body with a cone-shaped tip 235. The diameter of the base of the tip 235 is greater than that of the body such that the projecting formations has a barb. The projecting formation also has a shoulder 240 wherein there is sufficient distance between the top of the shoulder 240
20 and the base of the tip 235 to accommodate the thickness of a backing member.

The backing member 250, 280 is made from substantially rigid plastics material and is wider than the front member 210. Backing member 250 is
25 arranged to fit an external corner whereas backing member 280 is arranged to fit an internal corner. Each backing member has two parts 255, 290 and 260, 285 which define a right angle such that the backing member can lie flush with the walls at the corner of a room. In a similar manner to the front member 210, the backing member 250, 280 has a J-
30 shaped profile. The backing member defines a pair of holes 270 which are arranged to receive the projecting formations 230 of the front

member. The diameter of the holes 270 is less than the diameter of the base of the cone-shaped tips 235 of the projecting formations 230.

5 The front side of the backing member 250, 280 is provided with adhesive layers 295 which are protected by removable liners 300 to aid adhesion of a floor covering to the backing member. Further adhesive layers and removable liners are provided on the reverse side of the backing member 250, 280 for adhering the backing member to a wall.

10 In use, where self-coving floor covering is to be fitted to a corner, a suitable backing member 250, 280 is chosen depending on whether the corner is external 250 or internal 280. The floor covering must first be cut to provide edges to be sealed at the corner. The backing member 250, 280 is prepared for use by removing the liners from the adhesive on
15 its reverse side and adhered to the corner. The liners 300 on the front side of the backing member are then removed such that the floor covering can be laid to the corner. The edges of the floor covering are then sealed with mastic. A further layer of mastic is applied to the rear of the front member 210 which is then applied to the corner such that the projecting
20 formations 230 engage the holes 270 on the backing member 250, 280.

It will be understood that variants of the embodiment shown can be made without affecting the scope of the invention by forming the front member from a plastics material of a colour which matches the colour of the floor
25 covering with which the sealant kit is to be used to provide a more attractive finished flooring; and the projecting formations 230 may not have the shoulders 240.